

# OCEAN SCIENCE AND ENGINEERING

## MASTER'S AND DOCTORAL DEGREES IN **MARINE SCIENCE**

The field of marine science is relatively small: a few thousand people among six billion. The importance of the oceans to physical climate, food supplies, biological stability and coastal sustainability are being more widely recognized and appreciated every day.

We offer a curriculum designed to familiarize the graduate student with the interdisciplinary field of marine science, as well as allow for specialization in one of four major subfields: biological, geological, physical oceanography and marine chemistry. The M.S. degree requires a total of 34 hours of graduate-level courses. The Ph.D. degree requires 54 graduate hours. The Ph.D. program also offers an emphasis area in hydrographic science.

### Research at Home and Around the Globe

Thriving research programs provide global opportunities for students. Current projects are located in the Ross Sea, Antarctica, Japan, Bermuda, the Philippines, the Gulf of Mexico, the Bering Sea, the Arctic, and the rivers and estuaries of Mississippi, Louisiana and Texas.

### Stennis Space Center, Miss.

USM's Division of Marine Science is located at the Stennis Space Center (SSC) in south Mississippi. SSC is home to NASA's premier rocket engine test complex and more than 40 resident agencies, including federal, state, academic and private organizations. One of the federal agencies at Stennis is the Naval Meteorology and Oceanography Command, which includes the largest concentration of oceanographers in the world.

### Faculty Research Areas

- Biogeochemistry, Global Change and Climate Variability
- Remote Sensing, Marine Instrumentation and Autonomous Vehicles
- Coastal Hypoxia, Its Ecological and Biochemical Impacts
- Coastal, Estuarine and Global Ocean Circulation
- Mapping and Distribution Patterns of Marine Organisms
- Seafloor Mapping and Bathymetric Issues in Marine Science

- Coastal Hazards and Sea Level Rise
- Ocean Optics and Acoustics
- Sedimentology and Micropaleontology

### Marine Science Graduate Program Centers and Labs

- Central Gulf Ocean Observing System
- Center for Trace Analysis
- Northern Gulf Institute
- Hydrographic Science Research Center
- Coastal Hazards Research Laboratory
- Ocean Weather Laboratory

### Career Paths

- Professional Scientist
- Environmental Consultant
- University Professor
- Marine Technician
- Coastal Manager
- Marine Surveyor



EOE/F/M/VETS/DISABILITY



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